

## **TITLE 326 AIR POLLUTION CONTROL BOARD**

### **LSA Document #04-279**

#### **SUMMARY/RESPONSE TO COMMENTS FROM THE THIRD COMMENT PERIOD**

The Indiana Department of Environmental Management (IDEM) requested public comment from September 26, 2007, through October 17, 2007, on IDEM's draft rule language. IDEM received comments from the following parties:

Indianapolis Casting Corporation (ICC)  
Hammond Group, Inc. (HG)  
Lawrenceburg Distillers Indiana (LDI)  
Kimball International (KI)  
Cargill, Inc. (CI)  
Citizens Thermal Energy (CTE)  
LaSalle Steel Company (LSC)  
ArcelorMittal (Mittal)  
City of Chicago, the People of the State of Illinois, Lisa Madigan - Attorney  
General of the State of Illinois, Natural Resources Defense Council, and  
the Environmental Law and Policy Center (Commenters)

Following is a summary of the comments received and IDEM's responses thereto.

*Comment:* The facility source descriptions in 326 IAC 6.5-6-26 should be revised to describe the source as “International Truck and Engine Corporation & Indianapolis Casting Corporation”, not “International Truck and Engine & Indianapolis Casting Corporation”. The process description of the phase 3 baghouse listed in the emission table should be “Phase 3 North Baghouse & Phase 3 South Baghouse” to be consistent with the source’s internal nomenclature and the source’s Title V air permit nomenclature. (ICC)

*Response:* IDEM will make the changes as requested.

*Comment:* The reference to Stack 1-S-54 in 326 IAC 6.8-2-13 for the Hammond Group should be deleted since this stack no longer exists. The “Expander Division” heading should be moved above stack 14-S-15. (HG)

*Response:* IDEM will make the changes as requested.

*Comment:* The name in source listing 326 IAC 6.5-3-8 should be changed from “Pernod Ricard USA, Seagram Lawrenceburg Distiller” to “Lawrenceburg Distiller Indiana, LLC”. Item (1) “Boiler 5 shall burn only natural gas” should be eliminated because this unit has been removed from operation. (LDI)

*Response:* IDEM will make the changes as requested.

*Comment:* The correct name for 326 IAC 6.5-2-8 is now Kimball Office - Borden, not Kimball Case Goods. The correct name for 326 IAC 6.5-4-2 is now Kimball Office - Jasper 15<sup>th</sup> Street, not Artec. The correct name for 326 IAC 6.5-4-17 is now Kimball Office - Jasper Cherry Street, not Jasper Laminates, Plant 1 - Division of Kimball or flexcel - Jasper Cherry Street. The facility listed at 326 IAC 6.5-8-5, Evansville Veneer & Lumber, has been completely demolished and is no longer in existence. (KI)

*Response:* IDEM will make the name changes to Article 6.5 as requested. The proposed rule repeals 326 IAC 6.5-8-5 consistent with the comment received and no changes are needed.

*Comment:* The correct name for “Corn Scale System” (140-06-G) is “Gravity Take-Up Conveyor System” in 326 IAC 6.8-2-8 for Cargill, Inc. The letter “P” should be removed from all of the stack ID numbers. (CI)

*Response:* IDEM will make the changes as requested.

*Comment:* The commenter supports the change of the name of the facility to “Citizens Thermal Energy - C.C. Perry K Steam Plant” to reflect the current owner and facility name. The commenter also requests that the fuel designations for natural gas, coke oven gas, coal, or oil associated with Boilers 11 through 18 be removed under the process descriptions. (CTE)

*Response:* IDEM will make the changes as requested.

*Comment:* The PM<sub>10</sub> emissions limit of 0.020 lbs/hr for LaSalle Steel Company is not correct. During the 1992 construction of the emissions control equipment currently servicing the #1 and #2 Wheelabrator, the manufacturer guaranteed an emission discharge limit of 0.02 grains/acf, this guarantee surpassed the 0.06 grains/dscf emissions limit imposed upon us by IDEM at that time. Recent testing of the stack shows PM<sub>10</sub> emissions to average 0.0019 grains/dscf (approximately 0.0014 grains/acf), 10 times better than the manufacturer’s guarantee. Back calculations of the manufacturer’s guarantee of 0.020 grains/acf show our discharge to equal approximately 2.5 lbs/hr. The commenter requests the emissions limit for the stack servicing #1 and #2 Wheelabrator be revised to reflect the emission limitations of the control equipment. (LSC)

*Response:* IDEM agrees that the emission limits should be amended to be in line with what the manufacturer has guaranteed. Based on additional information from Hammond Department of Environmental Management (HDEM) the revised limits that IDEM is proposing are 2.57 lbs/hr and 0.086 lbs/ton. Air quality modeling results for the revised emission limit meet the 24-hour and annual PM<sub>10</sub> National Ambient Air Quality Standards (NAAQS) when including the background concentrations.

*Comment:* Change the emission unit description from “Number 2 Sheet Mill, No. 1 and No. 2 galvanize lines” to “Number 2 Sheet Mill, No. 1 Galvanizing and Aluminizing Line, and

No. 2 galvanize lines” in 326 IAC 6.8-2-21(d)(3) for Mittal Steel - Indiana Harbor West. (Mittal)

*Response:* IDEM will make the change as requested.

*Comment:* The name of the plant in 326 IAC 6.8-2-17 should be changed from “ISG Burns Harbor LLC/Mittal Steel USA” to “Mittal Steel - Indiana Harbor East Inc”. Section 326 IAC 6.8-2-17(d) should be removed for the following reasons: subdivisions (1) and (5) are redundant with subsection (b), subdivisions (2), (3), (4), and (7) apply to units that no longer exist, subdivision (6) discusses specific system design capacities that are already part of the facility’s Title V permit and therefore should not be included in the Indiana Administrative Code (IAC). Subdivision (8) does not apply to this facility. Subsection (e) should be removed because the requirement to comply with 326 IAC 3 is redundant and unnecessary statement. (Mittal)

*Response:* IDEM will make the changes as requested, except that subdivision (d)(6) will be retained since these provisions still apply to the facility and are part of the state implementation plan (SIP).

*Comment:* The proposed rule amends Indiana regulations at 326 IAC 6.8-2-6 to increase emission limits that apply to BP. To continue to maintain local air quality, the regulations should require reductions in BP’s emissions allowances. For 21 of the 32 emission units covered in the proposed amendments to 326 IAC 6.8-2-6(a) the emission limit increased from 0.004 pounds per million British thermal units (lbs/MMBtu) to 0.0075 lbs/MMBtu, which represents an increase of 87.5%. In other words, using a “more accurate quantification,” BP’s estimated emissions from these units are 87.5% higher than was estimated when the previous emission limits were enacted. The previous emission limits were presumably set at a level intended to “prevent significant deterioration of air quality” in the Metropolitan Chicago Air Quality Control Region as required by section 161 of the federal Clean Air Act (CAA). The emission limits required to meet this statutory mandate represent an actual threshold above which significant deterioration of air quality will occur. If the emission limit for a particular unit is set at the level required to avoid significant deterioration, then the realization that the unit is emitting 87.5% more particulate matter (PM) than previously thought would require that the emission limit decrease proportionately in order to not exceed the significant deterioration threshold. IDEM could, of course, have set the previous emission limits at a level that was more restrictive than necessary to avoid the significant deterioration threshold which would allow IDEM to revise the emission limits upward without exceeding the threshold. However, there is no evidence in the published record that IDEM set such a margin. Despite IDEM’s reliance on air modeling, it appears from the proposed rule that IDEM granted BP increased emission limits in order to not disrupt BP’s current level of operations and because the limits represented “the most stringent limits possible for BP.” If this is the basis for BP’s increased emission limits, then IDEM misconstrued the CAA’s mandate to prevent significant deterioration of air quality. This mandate represents an absolute threshold that exists independent of a particular source’s emission practices or economic limitations. To the extent that IDEM relied on modeling to

determine that the NAAQS would be maintained under the previous emission limits and the proposed emission limits, IDEM should make the modeling parameters, data, and conclusions available to the public. (Commenters)

*Response:* Overall, IDEM is requiring reductions in PM emissions at BP. Prevention of significant deterioration (PSD) allows netting. Considering all of the proposed changes in the rule, allowable emissions will decrease over 400 tons per year because some units have switched from burning fuel oil to burning natural gas, reducing PM emissions. BP has also shut down some emission units currently listed in the rule. The switch to cleaner burning natural gas and shut down of units improves air quality in the affected area. The revised emission limits along with the Lake County PM<sub>10</sub> SIP emission inventory were modeled to determine the impact from BP and the entire PM<sub>10</sub> SIP inventory. The 24-hour and annual modeled concentrations for BP were compared to the NAAQS for PM<sub>10</sub>. Including background concentrations, the total concentration was less than the NAAQS for the 24-hour and annual time averaging period. Actual modeling runs and parameters will be provided to U.S. EPA for SIP approval and will be available to the public upon request.

The emission limits that IDEM is proposing as part of this rulemaking for units burning natural gas and refinery gas include the filterable and condensible portion of particulate matter. Previously the emission limits in the rule only reflected what could be measured by considering the filterable portion of particulate matter. Since natural gas and refinery gas is already considered a clean burning fuel, these are the most stringent limits possible for BP.

*Comment:* The burden should be upon BP and IDEM to demonstrate that the proposed emission limits are the “most stringent limits possible for BP” if increasing emission limits because of “severe economic hardship” pursuant to 326 IAC 6.8-1-2(i). BP and IDEM should be required to provide detailed cost data for all technically feasible alternatives considered, as well as detailed analysis of why implementation of the most protective alternatives would result in “severe economic hardship” taking into account all of BP’s available assets and the financial consequences for BP as a whole and for the Whiting refinery individually. (Commenters)

*Response:* When modifying SIP emission limits through a rule change, IDEM does not need to rely on 326 IAC 6.8-1-2(i). For rule changes that are part of the SIP, IDEM considers each request for an amendment on a case by case basis considering the reasons for the request and the impact on air quality. In this situation, the source was already using natural gas and refinery gas, a clean burning fuel, and air quality modeling results showed that the NAAQS would be maintained. The use of this gas is the most technically feasible and cleanest option as IDEM and BP is not aware of technology that has been applied to control PM emissions from gas fired sources. For this SIP amendment, the increases are also due to new provisions where the source will be stack testing for both filterable and condensible PM emissions from the natural gas/refinery gas combustion sources. The revised emission limit increases reflect that the source will be stack testing for additional forms of PM. Currently, the Lake County PM<sub>10</sub> SIP only includes filterable PM<sub>10</sub>.

*Comment:* The use of emission factors to determine emissions can result in miscalculations regarding the sources's actual impact on air quality. IDEM should require repeated stack tests at each source to determine emissions. Using emission factors for BP is problematic because U.S. EPA gave the AP-42 natural gas emission factor for total PM a low rating of "D." Emission factors are rated from "A" (excellent) to "E" (poor). Also, the AP-42 emission factor used for BP is for natural gas and BP intends to burn refinery gas, not just natural gas in many of its emission units. The use of unreliable natural gas emission factors to determine emissions from refinery gas combustion compounds the inaccuracies inherent to the use of emission factors in the first place. (Commenters)

*Response:* Emission factors are useful in estimating emissions when no other data is available. Most sources using gas are not required to stack test as this fuel (natural gas, refinery gas) is best achievable control technology (BACT) in most cases, yet BP will be testing. The significant permit modification that IDEM is currently drafting will require representative testing of the combustion sources that use refinery gas to better quantify the PM emissions for these sources of emissions.

*Comment:* At most refineries, fluid catalytic cracking units (FCCUs) are the greatest source of PM emissions. In order to ensure that PM emissions from BP's FCCUs do not exceed the emission limits, FCU 500 and FCU 600 should be subject to opacity limits lower than the 20% required in Lake County pursuant to 326 IAC 5-1-2. IDEM already subjects some emission units in Lake County to more stringent opacity limits, for example, some emission units at ISG Burns Harbor LLC/Mittal Steel USA and U.S. Steel - Gary Works have opacity limits as low as 5% with 3 minute averaging periods. (Commenters)

*Response:* The Title V permit for this source requires a continuous compliance plan for the electrostatic precipitator (ESP) on each of the FCCUs for PM control. This is sufficient to ensure compliance with the PM limits for FCU 500 and FCU 600. There is also a continuous opacity monitor to ensure compliance with the opacity limit. IDEM is not proposing to lower the opacity limit for these units.